

## NEW SPECIES AND RECORDS OF MOLLUSCA FROM SOUTH AUSTRALIA

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## SUMMARY

In this paper a few new species of molluscs recently taken in South Australia belonging to various families are described and notes are added.

*Sphaerinova bursa* sp. nov.

Shell small, oval, inflated, thin, subequilateral, a little elongate anteriorly, umbos inclined forward, concentric striae fine, periostracum shining cream to yellow, cardinal teeth rudimentary, one in the right valve, two in the left, lateral teeth weak, lamelliform. Height 8 mm., diam. 9 mm.

*Loc.*—River Torrens Lake (type); also in waterholes formed by creeks draining the Western Mount Lofty Ranges.

*Remarks*—Holotype Reg. No. D.14453, S. Aust. Museum. The species is somewhat like *S. tatarae* but is a little more elongate anteriorly, larger, thinner, and lighter coloured. Specimens from the type locality have young shells attached to the inside of the valves. *S. tatarae* occurs in the South-East of South Australia and at various places in the Lower Murray such as Mannum, Murray Bridge and Tailem Bend.

*Australpera cara* sp. nov.

Shell small unequilateral, oblique, subcordiform, tumid, anterior side slightly longer than the posterior, acuminate and sharply curved, posterior broadly rounded, ventral margin regularly curved, umbos a little prominent, forming an apical cap in young shells; concentric striae very fine, periostracum brownish, teeth as figured. Height 3 mm., diam. 4 mm.

*Loc.*—Brown Hill Creek, western slopes of the Mount Lofty Ranges (type); also in the River Torrens.

*Remarks*—The species is rare. It is smaller and less elongate than the Victorian *A. etheridgii* which occurs in the lower Murray and South-East of South Australia. Holotype Reg. No. D.14454, S. Aust. Museum.

*Neotrigonia horia* sp. nov.

Shell trigonal, compressed, posterior a little elongate, posterior margin truncate, straight, anterior margin rounded, ventral and posterior margin forming almost a right angle; radial ribs about thirty sharp and narrow; spiny scales weak almost obsolete in some specimens; colour pale yellow; interior pure white; hinge and teeth typical of the genus. Length 35 mm., height 30 mm.

*Loc.*—South Australia: Beachport 110 fms. The species ranges from 110 to 200 fms.

*Remarks*—It is larger than *N. bednalli*, differently shaped and coloured, the hinge teeth are weaker and set at a wider angle, the radial ribs are finer and more acute, while the sculpture is less developed. Both species occur in S.W.A. Holotype Reg. No. D.14449, S. Aust. Museum. The species bears some resemblance to the Upper Miocene *N. acuticostata* (McCoy).

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## BELCHLAMYS ATKINOS (Petterd)

*Pecten atkinos* Petterd 1886, Proc. Roy. Soc. Tas., 329. The type came from the north-west coast of Tasmania. In the South Australian Museum Collection are the Holotype of *Pecten bednalli* Tate, Aldinga Bay, S. Aust., D.14170 and *Pecten pulleineanus* Tate 1886 South-East S. Aust., D.14171, both of which appear to be synonyms of *B. atkinos*.

## MYOCHAMA ANOMIOIDES Stutchbury

*Myochama anomioides* Stutchbury 1830, Zool. Journ., 5, 97, pl. xlii, fig. 1-4.

Two specimens of this species were taken at Port Adelaide by R. C. Chittleborough, Zoological Department, University of Adelaide. The shells, one dark blue-grey with a yellow stripe and the other yellow mottled with faint blue and white, were attached to the carapace of a crab, *Paragrapsus gaimardii*. G. Pattison took a specimen at Glenelg attached to *Mimachlamys asperrimus*, the ribs of the scallop being neatly reproduced on the *N. anomioides* which is whitish cream coloured; also another three, dark blue-grey in colour on *Exohaliotis cyclobates* with the sculpture of that specimen even to the perforations. B. J. Weeding has two specimens attached to *Mimachlamys asperrimus* and *Mytilus planulatus*, and F. Saunders a good example, yellow coloured, attached to *Mimachlamys asperrimus* taken at Grange, South Australia. Specimens also attached to and grew on glass sheets suspended in the sea for experimental purpose at Port Adelaide. It has not been noticed by South Australian collectors in past years and is a new record for South Australia.

## NOTOMYRTEA BOTANICA (Hedley)

*Lucina botanica* Hedley 1917, Journ. Roy. Soc. N.S.W., 51, 18. This New South Wales species was recorded by Verco 1908 from South Australia but has not been admitted in some later lists. It has been taken at numerous localities in South Australia, where shallow water examples are smoother than the deeper water dredged specimens. MacDonnell Bay, Moonta Bay, and dredged St. Francis Island 6 fms., Gulf St. Vincent 5 fms., Beachport 110 fms., 150 fms., and 200 fms.; W. Aust: King George Sound 12-14 fms., 28 fms., 35 fms.

## ANAPELLA AMYGDALA (Crosse and Fischer)

*Mactra amygdala* Crosse and Fischer 1864, Journ. De. Conch., 12, 349, also 13, 426, pl. ix, fig. 3.

This species described from Spencer Gulf, South Australia, appears from the description to be similar to *A. adelaidae* Angas 1865, and *A. amygdala* will thus have priority.

## JOUANNETIA CUMINGI (Sowerby)

*Triumphalia cumingi* Sowerby 1850, Proc. Zool. Soc., 1849 (1850), 161.

A small specimen of this species from the Tate Collection, said to have been taken by Tomsett at Port MacDonnell, South Australia, is in the South Australian Museum. The species was first described from the Philippines and is known to occur in North Australia and in New South Wales.

## TAWERA SPISSA (Deshayes)

*Venus spissa* Deshayes 1835, An. S. Vert., Ed. 2, 6, 273.

Hedley 1911 recorded this species, the genotype of *Tawera* under the name *Chione mesodesma* Quoy and Gaimard 1835 from Cape Wiles, S. Aust., 100 fathoms. This was the only record of the species from South Australia until a

specimen probably representing this species was taken off Cape Donnington, 7 fathoms, by J. Veitch in April 1953. *Chione mesodesma* Quoy and Gaimard 1835 is recorded by May, 1912, as "Plentiful, as dead valves, in 100 fathoms, off Cape Pillar; wrongly identified as *C. gallinula* Lamarck."

GARI KENYONIANA (Pritchard and Gatliff)

*Tellina kenyoniana* Pritchard and Gatliff 1904. Proc. Roy. Vict., 17, 339, pl. xx, fig. 1-4.

This species was recorded from South Australia on the basis of two valves taken by Verco "Off Royston Head, 22 fms." A further specimen was taken in 1938 from the same locality and depth. J. Veitch of Port Lincoln has two valves in his collection dredged off Cape Donnington, 7 fathoms, 18 April 1953.

BASSETHULLIA PORCINA (Ashby)

*Notoplax porcina* Ashby 1912. Trans Roy. Soc. S. Aust., 43, 395, pl. xli, fig. 7, 10.

The holotype D. 12250 S. Aust. Museum, was dredged in Gulf St. Vincent and later donated by B. J. Weeding from the Torr collection. Ashby's disarticulated holotype was the only example available for study at the time. It was once thought to be a deep water form of *B. matthewsi* Pilsbry. Mr. A. K. Beasley took a further living specimen at Christie's Beach in 1937, washed up after a storm. The length is 30 mm. and the breadth 10 mm. in the dried specimen.

An examination of this second specimen which is not from deep water suggests that *B. porcina* is a distinct species.

*Aviscutum veitchi* sp. nov.

Shell oblong, straight parallel sides, thick, moderately elevated; sinus well marked; strongly wrinkled and pitted over the major part of the dorsum, wrinkles becoming obsolete at the margins. Diameter 40 mm. and 75 mm., height 12 mm.

*Loc.*—S. Aust.: Point Sinclair (type), subfossil?

*Remarks*—A careful examination of the holotype specimen proves that the sculpture is authentic and not due to erosion. It is placed in the genus *Aviscutum* because of the wrinkled sculpture through the parallel sides and little elevated shell are atypical features. The nearest relative appears to be *Scutus corrugatus* Reeve 1870 from Japan, but the present species is bigger and the sides are parallel. It is named after Mr. J. T. Veitch, an enthusiastic collector who specializes on the "west coast" beaches of South Australia and has made a number of interesting discoveries. Holotype Reg. No. D.14428, S. Aust. Mus. The so-called "*Scutus unguis* Linne" belonging to *Aviscutum* was recorded by Theile 1930, from Sharks Bay, West Australia.

CELLANA LATICOSTATA (Blainville)

*Patella laticostata* Blainville 1825. Dict. Sci. Nat., 38, 111. This large Western Australian limpet has been found dead on the beach at Port Lincoln (Trigg), Point Sinclair (Weeding), one from Streaky Bay and in number on the Middle Recent raised beach at Port Augusta by J. Veitch. It is probably not living in South Australia and only occurs as a subfossil on the western beaches of South Australia. It is recorded from Victoria in a recent systematic list.

PHASIANELLA AUSTRALIS (Gmelin)

*Buccinum australis* Gmelin 1788. Syst. Nat., 3,490. On the Middle Recent stranded beach at Port Augusta, Mr. J. Veitch took a number of the Ark shell

*Anadara trapezia* and a series of the common *Phasianella* occurring there. The *Phasianella* is obviously related to the living *P. australis*, having a similar varied though characteristic colour pattern, but the shape is consistently and markedly different, being much more elongate and narrow. At first it was thought that the species may be more closely related to *P. dennanti* Cressin 1926 from Muddy Creek, Upper Beds, Pliocenc. However, it is quite distinct from the Pliocene species, being considerably longer in the spire and having narrower whorls. This represents a remarkable change in comparative shape during a period of some few thousand years. The living species, which lives and feeds on *Cymodocea* weed, is very consistent in shape in various localities and under varying ecological conditions. A series of recent *P. australis* from Geraldton, Western Australia closely resemble the fossil. H. M. Cooper took a further specimen of the fossil *Phasianella* at one mile north of Port Augusta West and this has the characteristic colour pattern where the surface has not exfoliated. The same collector took a fossil *Hypocassis fimbriata* from a similar *Anadara* beach at about present high tide mark, opposite Flinders Bluff, ten miles south of Port Augusta West. This specimen is a miniature, two inches in length, thick, solid, with an exsert spire. The present day shell found on the nearby beach averages about three and a half inches in length and is comparatively thin with little elevation of the spire.

#### DARDANULA FLAMMEA (Frauenfeld)

*Subanaea flammea* Frauenfeld 1867. Novara Exped. Moll., 12 pl. ii, fig. 18.

This has been recorded from various localities, New South Wales, Victoria and Tasmania. Mr. J. T. Veitch took it at Arno Bay, South Australia.

#### *Rhizoconus klemæ* sp. nov.

Shell conical, medium size, thick, spire moderately high, apex obtuse, usually polished, blunt, white; colour golden-brown, the body-whorl white at the anterior extremity, with a medial white band interrupted by irregular nut-brown narrow axials; above the median band are three narrow spirals of alternating white and nut-brown dashes; two similar spirals below the medial band; angle of body-whorl white and nut-brown narrowly banded, a pattern which can be seen at the sutures on the spire; surface of shell polished, irregularly obscurely marked with accremental striae, slightly concavely margined below the suture. Height 47 mm., diam. 26 mm.

Loc.—S. Aust.: Corny Point (Miss M. Klem), Eyre Is., Levens (Cotton), Daly Head (Weeding).

*Remarks*—Hedley, November 1913, commenting on specimens sent to him by Sir Joseph Verco from St. Francis Island, South Australia, writes: "The *Conus* from St. Francis Island, South Australia, is *C. rattus* Hwass, a species common in the tropics, but I suppose a new record for your State. Your specimens agree well with a series I collected at Fitzroy Island, Queensland." Miss G. Thornley recently forwarded to me in exchange for *R. klemæ* a series of *R. rattus* and two *R. taitensis* and both prove to be quite distinct from *R. klemæ*.

Specimens of *R. klemæ* are quite consistent in their shape and colouration. A juvenile figured here has a lighter golden colour than the adult. Shells in good condition are taken on the west coast of Yorke Peninsula, South Australia, but I have not yet seen a living specimen nor did I take it in Western Australia. Holotype D.14465 S. Aust. Museum.

***Alaba coma* sp. nov.**

Shell thin, smooth, white except for a few reddish-brown spaced spiral and axial hair lines; whorls eight a little globose; sutures linear, aperture ovate angled at the base of the columella, outer lip thin simple, columella straight. Height 5 mm., diam. 2.8 mm.

*Loc.*—S. Aust.: Port Lincoln 10 fms., MacDonnell Bay, Outer Harbour; Tasm.: N. Coast; Vict.: W. Coast. Holotype Reg. No. D.14466, S. Aust. Museum.

*Remarks*—*A. pulchra* Adams 1862 was described from Port Adelaide and it is quite a common shell. The typical South Australian shells agree with the original description in being imbricate and validly nodosoplicate. The figure given by Hedley, Proc. Linn. Soc. N.S.W., 13, pt. 2, pl. xviii, fig. 57, does not agree with our shell, and the one in May, Illust. Index Tas. Shells, pl. xxv, fig. 22, is drawn from a North Tasmanian specimen of *A. coma*. The present species resembles *A. pulchra* in having capillary rufous spirals and axial flammules, but it is quite distinct in shape and sculpture. This may be the species formerly known under the name *A. picta* Adams, a Japanese shell. A typical specimen of the South Australian *A. pulchra* is figured here. Species of *Alaba* and *Diala* are frequently associated with gypsum deposits in our coastal areas.

***Teretriphora mcgilpi* sp. nov.**

Shell sinistral, dark brown, rather obese, protoconch of three small whorls only slightly deviated from the axis and not much swollen; adult whorls six, three smooth spiral ribs, with interspaces of equal width, accretional striae fine, suture deep and narrow, dark coloured; aperture little developed, roundly rhomboidal pinched at the suture into asinus.

*Loc.*—Henley Beach, shell sand (McGilp).

*Remarks*—The species is most closely related to *Teretriphora gemmegens* Verco 1909 from Beachport, 40 fms. It differs in being much smaller, more swollen and having the spiral ribs smoother and interspaces wider. The specimen is juvenile and unique. Holotype Reg. No. D.14464, S. Aust. Museum.

***Glyptorhagada umberatana* sp. nov.**

Shell globose-conical, fairly thick, whorls stepped, body whorl with an obsolete keel, aperture oblique, expanded margin reflected, free except where it is in contact with the base of the shell, umbilicus narrow, sculpture of oblique axial ribs, Height 19 mm., diam. 27 mm. x 23 mm.

*Loc.*—Umberatana, Far North of South Australia (type).

*Remarks*—A series of specimens of this species was taken by Mr. R. Sprigg, Department of Mines, South Australia. It is distinguished from *G. silveri* Angas in being larger, more depressed, spire more stepped and the axial sculpture is less regular and less wavy. Holotype Reg. No. D.14450.

***Excellaoma pattisonae* sp. nov.**

Shell subconical, apex almost smooth, umbilicus nearly closed and hidden by the columella reflection, axial sculpture of distant valid riblets interspaces regularly finely axially striate; spiral lirae almost obsolete. Diam. 7 mm. x 6 mm., height 4 mm.

*Loc.*—National Park, Victoria Drive, Long Gully, June 1939, Mrs. D. M. Pattison, also Blackwood Road, Beaumont, and near the Commissioner's shack, National Park, June 1951 (Cotton).

*Remarks*—The species is most clearly allied to *E. neta* Iredale 1937 from Kangaroo Island. It differs in being larger, more conical and having well marked

scopic spirals on the protoconch. Three specimens only, one from each locality have been taken to date. The holotype, Reg. No. D.14451, S. Aust. Museum, National Park, figured and a ventral and dorsal view of the juvenile specimen from Long Gully is also given.

**Pleuroxia ruga sp. nov.**

Shell depressed, narrowly umbilicated, chalky white; sculpture of strong, wavy axials and close minute granules, the granules present on the earlier whorls; last whorl sharply rounded at the periphery, descending in front, wavy axial plicate on the base, aperture rounded, peristone continuous, lip expanded and free. Height 7 mm., diam. 17 mm. x 14 mm.

*Loc.*—W. Aust.: top of Cape Range, Exmouth Gulf (type).

*Remarks*—The shell is possibly related to *P. gascoynensis* Smith 1894, but I have not seen a specimen of that species, the type of which is in the British Museum. According to the description and figure of the type of *P. gascoynensis*, the present species is much larger, has a narrow umbilicus, a much coarser sculpture and more expanded lip margin. Holotype Reg. No. D.14452, S. Aust. Museum. Collected by Miss I. Crespin, Commonwealth Palaeontologist.

**CONCLUSION**

Two new species of freshwater Pelecypods and one marine Pelecypod are described and notes of seven others are added. Four new species of marine Gastropod are introduced and three others are discussed. Three new species of native land shells are described.